WE CLAIM:

1   1.   A waveform customization method for a signal generator, comprising:

2   retrieving a waveform and at least one code associated with said waveform

3   from a storage media;

4   retrieving at least one key associated with said signal generator;

5   comparing said at least one code associated with said waveform and said at

6   least one key; and

7   downloading said waveform to said signal generator under condition that said

8   at least one code matches said at least one key.

1   2.   The method of Claim 1, further comprising:

2   bundling said waveform and said at least one code associated with said

3   waveform into a file; and

4   storing said file containing said waveform and said at least one code associated

5   with said waveform in said storage media.

1   3. The method of Claim 2, further comprising:

2   providing one or more parameters that characterize said waveform; and

3   creating said waveform based on said one or more parameters.

1   4. The method of Claim 3, further comprising:

2   providing one or more signal generator settings;

3   bundling said one or more signal generator settings with said waveform and

4 said at least one code; and

5   configuring said signal generator using said one more signal generator settings.

1   5. The method of Claim 4, wherein said steps of providing further comprises:

2   entering at least one of said one or more parameters and said one or more

3 signal generator settings by a user into a computer that creates said waveform.

1   6. The method of Claim 5, wherein said step of providing said one or more signal

2 generator settings further comprises:

3   pre-configuring said one or more signal generator settings; and

4   storing said one or more pre-configured signal generator settings on said

5 computer.

1   7.   The method of Claim 2, wherein said file is encrypted, and further comprising:

2   decrypting said file after said step of retrieving said waveform.

1   8.   The method of Claim 1, wherein said step of retrieving said at least one key

2 further comprises:

3   retrieving said at least one key from said signal generator, said at least one key

4 being stored within said signal generator.

1   9.   The method of Claim 1, wherein said waveform is a signal modulated to

2 conform to one of a plurality of communication formats, said signal generator being capable of

3 downloading and transmitting signals modulated to conform to any of the plurality of

4 communication formats, each of the plurality of communication formats having a different one

5 of said at least one code associated therewith.

1   10.   The method of Claim 1, further comprising:

2   requesting said waveform be downloaded to said signal generator by an

3 automatic test equipment system.

1   11.   The method of Claim 10, further comprising:

2   requesting an additional waveform be downloaded to an additional signal

3   generator by said automatic test equipment system.

1   12.   The method of Claim 11, wherein said additional waveform is stored within an

2   additional storage media.

1   13.   A system customizing at least one waveform of a signal generator, comprising:

2   a storage media adapted to store a waveform and at least one code associated

3   with said waveform; and

4   a download application configured to retrieve said waveform and at least one

5   key associated with said signal generator, compare said at least one code associated with said

6   waveform and said at least one key and download said waveform to said signal generator

7   under condition that said at least one code matches said at least one key,.

1   14.   The system of Claim 13, further comprising:

2   a signal generation application configured to bundle said waveform and said at

3   least one code associated with said waveform into a file and store said file in said storage

4   media.

1   15.   The system of Claim 14, wherein said signal generation application is further

2   configured to encrypt said file prior to storing said file in said storage media, said download

3   application being further configured to decrypt said file.

1   16.   The system of Claim 14, wherein said signal generation application is further

2   configured to receive as input one or more parameters that characterize said waveform and

3   create said waveform based on said one or more parameters.

1   17.   The system of Claim 16, wherein said signal generation application is further

2   configured to provide one or more signal generator settings and bundle said one or more

3   signal generator settings with said waveform and said at least one code, said download

4   application being further configured to use said one or more signal generator settings to

5   configure said signal generator.

1   18.   The method of Claim 17, further comprising:

2   a computer having at least said signal generation application therein, said signal

3   generation application further having an interface capable of receiving at least one of said one

4   or more parameters and said one or more signal generator settings from a user of said

5   computer.

1   19.   The system of Claim 18, wherein said one or more signal generator settings are

2   pre-configured and stored on said computer.

1   20.   The system of Claim 18, wherein said computer further has said storage media

2   and said download application therein.

1   21.   The system of Claim 18, further comprising an additional computer having at

2   least said download application therein.

1   22.   The system of Claim 21, wherein said computer is operatively connected to

2   said additional computer.

1   23.   The system of Claim 22, wherein said computer is connected to said additional

2   computer via a data network.

1 24. The system of Claim 13, wherein said at least one key is stored on said signal

2 generator.

1 25. The system of Claim 13, wherein said waveform is a signal modulated to

2 conform to one of a plurality of communication formats, said signal generator being capable of

3 downloading and transmitting signals modulated to conform to any of the plurality of

4 communication formats, each of the plurality of communication formats having a different one

5 of said at least one code associated therewith.

1 26. The system of Claim 13, further comprising:

2 an automatic test equipment system adapted to request said download

3 application to download said waveform to said signal generator.

1 27. The system of Claim 26, wherein said automatic test equipment system is

2 further configured to request an additional waveform be downloaded to an additional signal

3 generator.

1 28. The system of Claim 27, further comprising:

2 an additional storage media, said additional waveform being stored within said

3 additional storage media.